

## Zebron™ Gas Management Systems

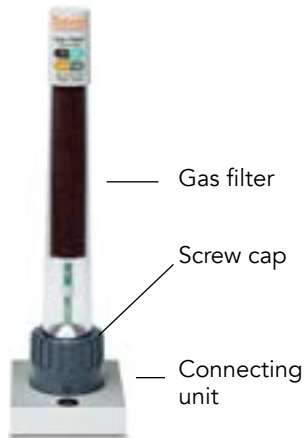


### Introduction

The Zebron Gas Management Filter System is composed of two parts: filters and connecting units.

Filters connect to the connecting unit and are held in place with a retaining ring. The outer wall of the filters are constructed from durable polycarbonate. The bottom of the filter is protected with PTFE seals that are punctured by the receiving valves on the connecting unit, forming a clean and leak-free connection. Zebron filters are available to trap moisture, oxygen, hydrocarbons, or a universal moisture/oxygen/hydrocarbon filter, ideal for GC-MS applications.

The connecting unit supports the filters with a retaining ring and contains inlet and outlet gas line connectors. When filters are replaced, valves automatically stop and start the gas flow. The connecting unit can be placed near the instrument within reach for inspection and replacement.



### How to install the gas filter

1. Install the gas lines to the connecting unit.
2. The connecting unit has inlet and outlet arrows. The tubing from the gas cylinder goes to the inlet side. The tubing from the outlet will send purified gas to GC instrument.
3. Carefully check all connections for leaks as leaks can potentially increase oxygen and moisture contamination.

4. Switch on the gas cylinder flow using the pressure regulators that are attached to the cylinder.
5. Depress the inlet valve for 2 minutes to remove any oxygen or moisture from the line.
6. Remove the screw cap from the connecting unit.
7. Remove inlet and outlet plugs from the gas filter.
8. Align the gas filter with the inlet and outlet valves. Place the screw cap over the filter and turn clockwise until the unit is intact.
9. Set up the split flow as 400 mL/min for 4 minutes from the GC instrument control panel. This step will allow the pure gas to purge the line.

### When do I need to replace the filter?

Filters should be replaced every six months, or when the indicator has changed color, whichever comes first. Used filters need to be treated as chemical waste and disposed of in accordance with local regulations.

### How to replace the gas filter

1. Reduce the system pressure to less than 7 bars.
2. Unscrew the screw cap by turning counter clock wise and remove the old filter.
3. Replace the O-ring with a new one.
4. Follow steps 5 to 9 from "[How to install the gas filter](#)" instructions.

## How should I prevent a gas leak?

1. Zebtron™ Gas Management Filters can only be used with a connecting unit that has side-hole needle valves.
2. New O-rings are provided and must be replaced with each new filter.
3. Inlet pressure should not exceed 15 bar (219 psi).

## Technical Specifications

Filter Type	Oxygen	Moisture	Hydrocarbon	Universal
Benefits	Removes oxygen as well as traces of sulfur and chlorine compounds	Removes water and other foreign material	Removes organic compounds	Single filter that removes water, oxygen, and hydrocarbons
Indicator color change	Green → Gray	Green → Brown	No indicator	Oxygen: Green → Gray Hydrocarbon: No Indicator Moisture: Green → Brown
Capacity	150 mL oxygen	7.2 g water	~7 g, depending on impurities	100 mL oxygen 1 g water Organics depending on impurities
Outlet concentration (1-10 L/min flow)	<50 ppb	<0.1 ppm	<0.1 ppm	Oxygen <50 ppb Moisture <0.1 ppm Organics <0.1 ppm

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## Safety Precautions for the Oxygen Filter

Oxygen needs to be limited to no more than 0.5% for the oxygen and universal filter. Use caution when replacing gas cylinders to limit air into the gas lines. If air enters the gas lines, purge the lines prior to filter installation. Filters are not re-fillable. Do not attempt to break or empty filter material.

## Ordering Information

### Zebtron™ Gas Management Replacement Filters

AG5-1010	Zebtron Gas Management Oxygen Filter, 1 pack
AG5-1020	Zebtron Gas Management Moisture Filter, 1 pack
AG5-1030	Zebtron Gas Management Hydrocarbon Filter, 1 pack
AG5-1040	Zebtron Gas Management Universal Filter, 1 pack

### Zebtron Gas Connecting Unit Baseplates

AG5-2103	Zebtron Gas Management 4-position Connecting Unit 1/4"
AG5-2203	Zebtron Gas Management 4-position Connecting Unit 1/8"
AG5-2102	Zebtron Gas Management 2-position Connecting Unit 1/4"
AG5-2202	Zebtron Gas Management 2-position Connecting Unit 1/8"
AG5-2101	Zebtron Gas Management 1-position Connecting Unit 1/4"
AG5-2201	Zebtron Gas Management 1-position Connecting Unit 1/8"

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